Name: _____ **Class:** _____ **Date:** _____ **ID: A**

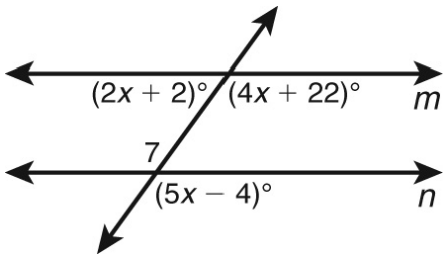
RGeometry Chapter 7 Practice Test

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1 The length of width of a rectangle are $(x+3)$ and $(x-4)$, respectively. The area is 120 square units. What is the perimeter of the rectangle?

a 21 units
b 23 units
c 42 units
d 46 units

____ 2 In the figure, $m \parallel n$. What is the measure of $\angle 7$?



a 30°
b 31°
c 106°
d 126°

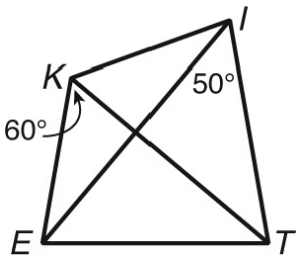
____ 3 Which equation represents the perpendicular bisector of the segment whose endpoints are $(0,-6)$ and $(8,10)$?

a $2x+y=-6$
b $y-2=-\frac{1}{2}(x-4)$
c $y-2=2(x+4)$
d $y-10=-\frac{1}{2}(x-8)$

____ 4 Which shows the side lengths of an obtuse triangle?

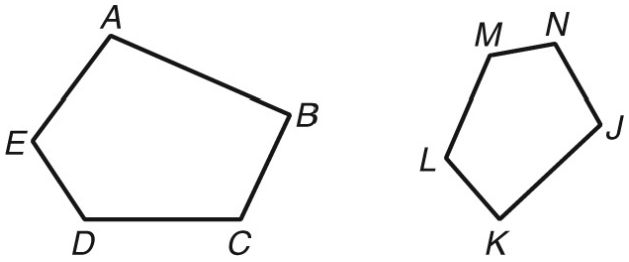
a 12, 20, 30
b 12, 20, 21
c 12, 20, 20
d 12, 18, 20

____ 5 *KITE* is a kite with $KI = KE$ and $IT = TE$.. What is $\angle ITE$?



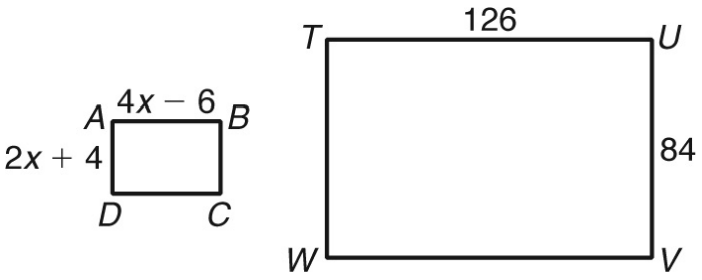
a 30°
b 40°
c 80°
d 120°

____ 6 Which similarity statement appears to be true for the figures shown?



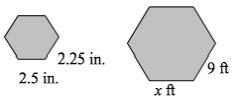
a pentagon *AEDCB* ~ pentagon *NMLKJ*
b hexagon *DCBAE* ~ hexagon *MLKJN*
c pentagon *DCBAE* ~ pentagon *KJMNL*
d pentagon *DCBAE* ~ pentagon *MLKJN*

____ 7 What is *CD* if $\square ABCD \sim \square TUVW$?



a 12
b 28
c 42
d 84

____ 8 A scale drawing of a specialized boxing ring has the dimensions shown. The actual ring has the dimension shown. What is the value of *x*?



a 0.625 ft
b 1.6 ft
c 8.1 ft
d 10 ft

____ 9 Which of the following transformations is NOT a similarity transformation?

a $M: (x,y) \to (3x,4y)$
b $M: (x,y) \to (5x,5y)$
c $M: (x,y) \to (0.01x,0.01y)$
d $M: (x,y) \to (0.66x,0.66y)$

____ 10 The dilation D: $(x,y) \rightarrow \left(\frac{1}{10}x, \frac{1}{10}y\right)$ has been applied to the polygon $V(-6,4), W(6,8), X(-2,-1)$. What are the coordinates of the image points?

a $V'(60,-40), W'(-60,-80), X'(20,10)$

b $V'(-60,40), W'(60,80), X'(-20,-10)$

c $V'(0.6,-0.4), W'(-0.6,-0.8), X'(0.2,0.1)$

d $V'(-0.6,0.4), W'(0.6,0.8), X'(-0.2,-0.1)$

____ 11 Polygon $S(10,-4), T(-8,4), U(5,5), V(8,0)$ was mapped to polygon $W(6,-3.5), X(-3,0.5), Y(3.5,1), Z(5,-1.5)$. What was the similarity transformation?

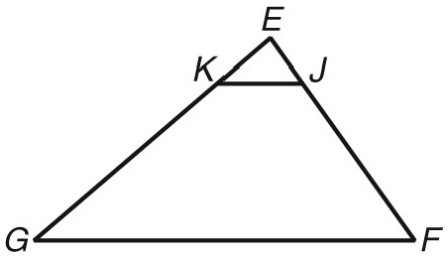
a translate: $(x,y) \rightarrow (x-4,y-0.5)$

b translate: $(x,y) \rightarrow (x-3,y-1.5)$

c first translate: $(x,y) \rightarrow (x+2,y-3)$ then dilate: $(x,y) \rightarrow (0.5x,0.5y)$

d first dilate: $(x,y) \rightarrow (2x,2y)$ then translate: $(x,y) \rightarrow (x-14,y+4.5)$

____ 12 Given $EK = \frac{2}{9}EG$ and $EJ = \frac{2}{9}EF$, which similarity postulate or theorem proves $\Delta EFG \sim \Delta EJK$?



a AA

b SSS

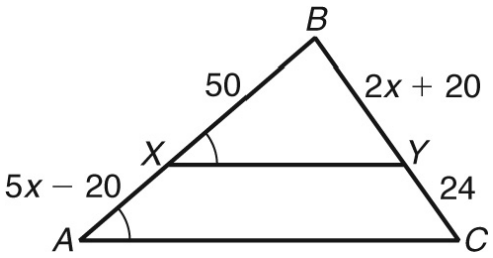
c SAS

d Not here

____ 13 $\triangle ABC \sim \triangle JKL$, $JL = 16$, $JK = x$, $AC = 5x$, and $AB = 125$. Find AC.

a 20
b 100
c 125
d Not here

____ 14 What is BY?



a 30
b 40
c 52
d 60

____ 15 An angle bisector of a triangle divides the opposite side of the triangle into segments that are 36 inches and 16 inches long. Another side of the triangle is 60 inches long.What is NOT a possible length for a side of the triangle?

a $26\frac{2}{3}$ in.
b 52 in.
c 135 in.
d Not here

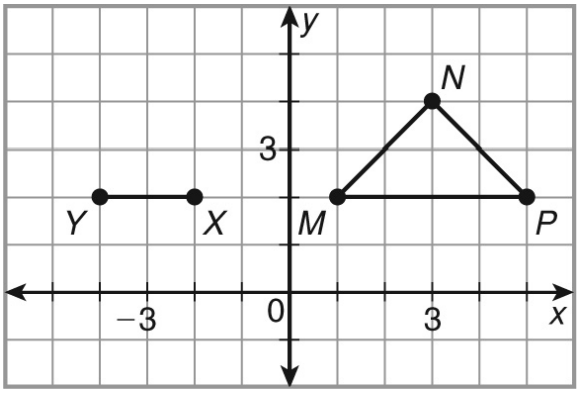
____ 16 Shadows were measured at the same time of day to determine the height of a grain silo. If the silo's shadow measured 15 feet and the height of the silo is 60 feet, which measurements were used to find the height?

a 2-meter pole with a 5-meter shadow
b 5-foot person with a 15-inch shadow
c 10-foot pole with a 40-foot shadow
d 2-meter person with a 3-meter shadow

____ 17 What scale will produce the smallest drawing?

a 1 cm : 5 m
b 1 mm : 50m
c 5 cm : 10 m
d 10 cm : 25 m

____ 18 How many different triangles having $\overline{XY}$ as a side are similar to $\triangle MNP$?



a 2
b 4
c 6
d 10

____ 19 $\triangle RST$ has vertices $R(1,1)$, $S(2,3)$, and $T(5,1)$. Which set of coordinates CANNOT be used to prove $\triangle RST \sim \triangle R'S'T'$?

a $R'(1.5,1.5)$, $S'(3,4.5)$, and $T'(7.5,1.5)$
b $R'(3,2)$, $S'(5,6)$, and $T'(11,2)$
c $R'(-3,-3)$, $S'(-6,-9)$, and $T'(-15,-3)$
d $R'(1,-1)$, $S'(2,-1)$, and $T'(5,-1)$

RGeometry Chapter 7 Practice Test
Answer Section

MULTIPLE CHOICE

1 ANS: D PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 7
MSC: DOK 2

2 ANS: D PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 7
MSC: DOK 2

3 ANS: B PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 7
MSC: DOK 2

4 ANS: A PTS: 1 DIF: 2 TOP: Cumulative Test, Chapter 7
MSC: DOK 2

5 ANS: C PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 TOP: Cumulative Test, Chapter 7
MSC: DOK 2

6 ANS: D PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 1

7 ANS: C PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 2

8 ANS: D PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 2

9 ANS: A PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 1

10 ANS: B PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 2

11 ANS: C PTS: 1 DIF: 2 NAT: NT.CCSS.MTH.10.9-12.G.CO.2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 2

12 ANS: C PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 2

13 ANS: B PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 TOP: Chapter 7 Multiple Choice Test, Form C
MSC: DOK 2

14 ANS: B PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 TOP: Chapter 7 Multiple Choice Test, Form C
MSC: DOK 2

15 ANS: D PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 TOP: Chapter 7 Multiple Choice Test, Form C
MSC: DOK 2

16 ANS: B PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 TOP: Chapter 7 Multiple Choice Test, Form C
MSC: DOK 2

17 ANS: B PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 1

18 ANS: C PTS: 1 DIF: 2
NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 TOP: Chapter 7 Multiple Choice Test, Form C
MSC: DOK 2

19 ANS: D PTS: 1 DIF: 2
TOP: Chapter 7 Multiple Choice Test, Form C MSC: DOK 2